

Type	L #	Hits	Search Text	DES	Time Stamp	Comments	Err or Def inits
1	BRS	L1	55 clostridial adj neurotoxin	USPAT; US-PGPUI; EPO; JPO; DEF WENT	2002/03/1 5 15:32		0
2	BRS	L2	366 botulinum adj (toxin or neurotoxin)	USPAT; US-PGPUI ; EPO; JPO; DEF WENT	2002/03/1 5 15:32		0
3	BRS	L3	9706 lectin	USPAT; US-PGPUI ; EPO; JPO; DEF WENT	2002/03/1 5 15:33		0
4	BRS	L4	61 (galactose adj binding) same 3	USPAT; US-PGPUI ; EPO; JPO; DEF WENT	2002/03/1 5 15:34		0
5	BRS	L5	7 (1 or 2) same (3 or 4)	USPAT; US-PGPUI ; EPO; JPO; DEF WENT	2002/03/1 5 15:37		0
6	BRS	L6	546 Lectin same (galactose or galactosyl or aceylgalactosamine)	USPAT; US-PGPUI ; EPO; JPO; DEF WENT	2002/03/1 5 15:37		0
7	BRS	L7	2 (1 or 2) same (6)	US-PGPUE ; EPO; JPO; DEF WENT	2002/03/1 5 15:38		0
8	BRS	L8	2804 erythrina or (glycine adj max) or (arachis adj hypogaea) or (bandeirea adj simplicifolia)	USPAT; US-PGPUE ; EPO; JPO; DEF WENT	2002/03/1 5 15:38		0
9	BRS	L9	111 (erythrina or (glycine adj max) or (arachis adj hypogaea) or (bandeirea adj simplicifolia) ) same lectin	USPAT; US-PGPUB ; EPO; JPO; DEF WENT	2002/03/1 5 15:39		0

Type	L #	Hits	Search Text	Def s	Time Stamp	Com men ts	Err or Def inits
10	BRS	L10 0	((erythrina or (glycine adj max) or (arachis adj hypogaea) or (bandeirea adj simplicifolia) ) same lectin) same (clostridial adj neurotoxin)	USPAT; US-PGPUI; EPO; JPO; DEF WENT	2002/03/15 15:39		0
11	BRS	L11 0	(lectin same (recombinant or modified) same (botulinum adj (toxin or neurotoxin))	USPAT; US-PGPUI; EPO; JPO; DEF WENT	2002/03/15 15:39		0
12	BRS	L12 56	lectin same (arachis adj hypogaea)	USPAT; US-PGPUI; EPO; JPO; DEF WENT	2002/03/15 15:39		0
13	BRS	L13 0	(lectin same (arachis adj hypogaea) ) same (clostridial adj neurotoxin)	USPAT; US-PGPUI; EPO; JPO; DEF WENT	2002/03/15 15:40		0

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(FILE 'HOME' ENTERED AT 15:42:12 ON 15 MAR 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'  
ENTERED AT

15:42:43 ON 15 MAR 2002

L1 832 S (CLOSTRIDIAL NEUROTOXIN)  
L2 18172 S (BOTULINUM TOXIN) OR (BOTULINUM NEUROTOXIN)  
L3 141534 S LECTIN  
L4 15375 S L3 (P) (GALACTOSE OR GALACTOSYL OR  
ACETYLGALACTOSAMINE)  
L5 2 S (L1 OR L2) AND L4  
L6 2 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)  
L7 9561 S L3 (P) (RECOMBINANT OR MODIF?)  
L8 4 S (L1 OR L2) AND L7  
L9 2 DUPLICATE REMOVE L8 (2 DUPLICATES REMOVED)  
L10 1 S L9 NOT L6

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FILE 'HOME' ENTERED AT 15:42:12 ON 15 MAR 2002

=> file medline caplus biosis embase scisearch agricola  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 0.15 0.15

FILE 'MEDLINE' ENTERED AT 15:42:43 ON 15 MAR 2002

FILE 'CAPLUS' ENTERED AT 15:42:43 ON 15 MAR 2002  
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FILE 'AGRICOLA' ENTERED AT 15:42:43 ON 15 MAR 2003

=> s (clostridial neurotoxin)  
L1 832 (CLOSTRIDIAL NEUROTOXIN)

=> s (botulinum toxin) or (botulinum neurotoxin)  
L2 18172 (BOTULINUM TOXIN) OR (BOTULINUM NEUROTOXIN)

141534 LECTIN

=> s 13 (p) (galactose or galactosyl or acetylgalactosamine)  
L4 15375 L3 (P) (GALACTOSE OR GALACTOSYL OR ACETYL GALACTOSAMINE)

=> s (l1 or l2) and l4

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=> duplicate remove 15
PROCESSING COMPLETED FOR L5
L6          2 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)
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=> d 16 1-2 ibib abs

L6 ANSWER 1 OF 2 CAPIUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 3000-306888 CARLISL

ACCESSION NUMBER: 2000:70699  
DOCUMENT NUMBER: 123-261530

DOCUMENT NUMBER: 133:261538

## TITLE: Use of a lectin or lectin conjugate for modulation

## C-fiber activity, and therapeutic use thereof

INVENTOR(S): Foster, Keith Alan; Chaddeck, John Andrew; Quinn,

10001, Reichen, Chaddick, John Andrew, Quinn, Conrad Padraig

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PATENT ASSIGNEE(S) : Microbiological Research Authority, UK  
SOURCE: PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000057897	A1	20001005	WO 2000-GB1247	20000331
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1165114	A1	20020102	EP 2000-914295	20000331
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
PRIORITY APPLN. INFO.:			GB 1999-7429	A 19990331
			WO 2000-GB1247	W 20000331

AB The invention relates to the treatment of pain and to compds. that modulate C-fiber activity. In particular, the invention relates to the use of a lectin in the manuf. of a medicament for modulation of C-fiber neuron activity, and to lectin conjugates. The lectin conjugates comprise a lectin coupled to a peptide or protein, wherein the peptide or protein is substantially free of Clostridial neurotoxin enzyme activity. The invention also concerns methods for manufg. the conjugates.

The compds. and compns. described have particular application in the treatment of diseases of which C-fiber activity is a component. Such diseases include pain, inflammation, psoriasis and other C-fiber related conditions.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:249106 CAPLUS

DOCUMENT NUMBER: 130:276767

TITLE: Conjugates of galactose-binding lectins and clostridial neurotoxins as analgesics

INVENTOR(S): Duggan, Michael John; Chaddock, John Andrew

PATENT ASSIGNEE(S): The Speywood Laboratory Limited, UK; Microbiological Research Authority

SOURCE: PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9917806	A1	19990415	WO 1998-GB3001	19981007
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,			
TM				
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9893574	A1	19990427	AU 1998-93574	19981007
AU 741456	B2	20011129		
ZA 9809138	A	19990527	ZA 1998-9138	19981007
EP 996468	A1	20000503	EP 1998-946571	19981007
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
JP 2001518522	T2	20011016	JP 2000-514674	19981007
PRIORITY APPLN. INFO.:			GB 1997-21189	A 19971008
			WO 1998-GB3001	W 19981007
AB	A class of novel agents that are able to modify nociceptive afferent function is provided. The agents may inhibit the release of neurotransmitters from discrete populations of neurons and thereby reduce or preferably prevent the transmission of afferent pain signals from peripheral to central pain fibers. They comprise a <b>galactose</b> -binding <b>lectin</b> linked to a deriv. of a <b>clostridial neurotoxin</b> . The deriv. of the <b>clostridial neurotoxin</b> comprises the L-chain, or a fragment thereof, which includes the active proteolytic enzyme domain of the light (L) chain, linked to a mol. or domain with membrane-translocating activity. The agents may be used in or as pharmaceuticals for the treatment of pain, particularly chronic pain.			

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L5 2 S (L1 OR L2) AND L4  
L6 2 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)

=> s l3 (p) (recombinant or modif?)  
L7 9561 L3 (P) (RECOMBINANT OR MODIF?)

=> s (l1 or l2) and l7  
L8 4 (L1 OR L2) AND L7

=> duplicate remove l8

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DUPLICATE PREFERENCE IS 'CAPLUS, EMBASE, SCISEARCH'  
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
PROCESSING COMPLETED FOR L8

L9 2 DUPLICATE REMOVE L8 (2 DUPLICATES REMOVED)

=> s 19 not 16  
L10 1 L9 NOT L6

=> d 110 1 ibib abs

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2002:75297 CAPLUS  
DOCUMENT NUMBER: 136:113889  
TITLE: Modification of biological properties of protein  
toxins by stepwise iodination  
AUTHOR(S): Heneine, Luiz G. D.; Heneine, Ibrahim F.  
CORPORATE SOURCE: Research & Development Laboratory, Ezequiel Dias  
Foundation (FUNED), Belo Horizonte, 30510-050, Brazil  
SOURCE: Journal of Toxicology, Toxin Reviews (2001), 20(3 &  
4), 209-228  
CODEN: JTTRD9; ISSN: 0731-3837  
PUBLISHER: Marcel Dekker, Inc.  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English

AB A review. By gradual incorporation of stable iodine into toxins and whole venoms it is possible to abolish completely the physiol., lesional, and lethal properties of the native components. The properties of iodinated antigens and from antibodies generated by these detoxified derivs. are presented. The hapten is incorporated into tyrosyl and histidyl residues.

The derivs. can be obtained in <1 h. Within the same batch of protein, there is a determinable stoichiometric ratio hapten/protein to achieve the

desired modified properties of the deriv. The iodinating solns. are easy to prep., can be accurately standardized, and have unlimited shelf lives. The cost of the whole procedure is very low. No side-effects, local or systemic, were obsd., even with prolonged use of the derivs. The method was applied to toxic components and whole venom of

the scorpion *Tityus serrulatus*, and the hypertensive, bradipneic, oliguric, lesional, lethal, and cytotoxic effects were completely abolished. Polyclonal antibodies generated by these iodinated antigens neutralized the virulent effects of native components and reversed the alpha. effects of the whole venom in frog sciatic nerves. They conferred

active immunization in mice, rats, guinea pigs, goats, horses, and pigeons. Crotoxin and the whole venom of *Crotalus durissus terrificus* lost the lesional and lethal activity but conserved the immunogenic capacity. They produced antibodies against the native components, giving also vaccinal protection. While the virulent crotalid antigens had a cytotoxic activity, the iodinated antigens were highly mitogenic with human white cells. Repetitive sublethal doses of scorpion, crotalid, and bothropic venoms led invariably to an amyloid-like deposit in tissues whereas the iodinated samples were ineffective. Allergenic exts. of *Schistosoma mansoni* can be transformed into anallergic derivs. that retain

antigenic properties. Violently allergenic exts. of *Ascaris lumbricoides*

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sum can be completely deactivated with iodination but conserved immunol. competence. Cholera, tetanus, and **botulinum toxins**, as iodinated toxoids, had their lesional and lethal capacity completely avoided. Physiol. proteins with strong biol. activity can also be rendered innocuous. Iodinated insulin lost its capacity to lower blood glucose levels but induced high avidity antibodies in guinea pigs and rabbits. By iodination, kallikrein can be turned unable to contract rat uterus and to liberate kinins from kininogen. **Modified tonin** do not increase the blood pressure in rats. Aq. exts. of **Leptospira canis**

and **L. icterohaemorrhagiae** after iodination were innocuous to hatched eggs, and immunogenic in mice and rabbits. A **lectin** from **Macrotylema axillare** lost the hemagglutination capacity with only 75% of iodine satn. The deriv. was highly immunogenic in rabbits. Heavy iodination can transform self-antigens in non-self, generating antibodies in same species animals. All derivs. obtained were stable, did not show any reversion to toxicity, generated antibodies against the native antigens, and gave active protection when injected in animals. The injections were also apparently painless. The time gap between the accident and the administration of antibodies is discussed for systemic and local effects. A new schedule for immunization, only feasible with toxoided venoms, is presented. It is based on a clonal expansion induced by a small dose, followed by an exponential satn. dose of the same toxoid.

The attainment of higher levels of protecting antibodies against the native antigen in the generated sera is unmatched by other procedures. Data for practical use of iodination is presented.

REFERENCE COUNT: 93 THERE ARE 93 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L8 4 S (L1 OR L2) AND L7  
L9 2 DUPLICATE REMOVE L8 (2 DUPLICATES REMOVED)  
L10 1 S L9 NOT L6

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COST IN U.S. DOLLARS

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

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35.35	35.50

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-1.86	-1.86